DOCUMENT RESUME

ED 309 844 PS 018 138

AUTHOR Van Scoy, Irma J.
TITLE Differences in Teaching between the Primary and Intermediate Grades.
PUB DATE Mar 89
NOTE 37p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA, March 27-April 1, 1989).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Classroom Communication; *Classroom Techniques; Comparative Analysis; Educational Objectives; Elementary Education; *Grouping (Instructional Purposes); Instructional Materials; *Intermediate Grades; *Primary Education; *Teacher Behavior; Teaching Methods

ABSTRACT

This paper reports research on differences between teaching in the primary and intermediate grades. Hypotheses concerning differences in teacher behaviors, teacher communications, grouping, teacher control, and types of materials were developed. Six 1st- and 2nd-grade classes and five 4th- and 5th-grade classes were observed for four 45-minute periods, yielding a total of 33 hours of data. In addition, observers, teachers, and five students from each of the 11 classes responded to vignettes depicting classroom situations. Subjects' responses were coded for teacher behaviors, goals, and instructional methods. Analysis of observational data yielded significant differences in five of the nine variations hypothesized. In comparison with teachers in intermediate grades, primary teachers used significantly greater numbers of sanctions, procedural communications, and teacher communications. Primary classrooms also used a greater proportion of small group instruction and concrete materials than did intermediate classrooms. Analysis of subjects' responses to vignettes clarified these findings and added further detail. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED309844

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

DIFFERENCES IN TEACHING BETWEEN THE PRIMARY AND INTERMEDIATE GRADES

Irma J. Van Scoy
Department of Early and Middle Education
James Madison University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Irma J. Van Scoy

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Paper presented at the Annual Meeting of the
American Educational Research Association
San Francisco, CA
March 1989

PS 018133

BEST COPY AVAILABLE

Abstract

This paper reports research which investigated differences in teaching between the primary and intermediate grades. Specific hypotheses concerning differences in teacher behaviors, teacher communications, grouping, teacher control, and types of materials were developed based on child development theories and previous research. Six primary classrooms (grades one and two) and five intermediate classrooms (grades four and five) were each observed for four 45 minute observation periods yielding a total of 33 hours of data. In addition, observers, teachers, and five students from each of the same 11 classrooms responded to vignettes depicting classroom situations. Subjects' reponses were coded for teacher behaviors, goals, and instructional methods. Analysis of observational data yielded significant differences in five of the nine ways hypothesized. In comparison with teachers in intermediate grades, primary teachers used significantly greater numbers of sanctions, procedural communications, and total teacher communications. Primary classrooms also used a greater proportion of small group instruction and concrete materials than intermediate classrooms. Analysis of subjects' responses to vignettes clarified these findings and added further detail.

Introduction

The purpose of this research was to examine the similarities and differences between teaching in the primary grades (kindergarten through third) and teaching in the intermediate grades (fourth through sixth). The suggestion that there are significant differences in teaching between the elementary grades is based on theories of child development, such as those of Jean Piaget (1972) and Robert Havighurst (1972). Children of primary grade age (approximately five through eight) and intermediate grade age (approximately nine through eleven) differ in cognitive stages, personal independence, social relationships (including socialization to school), perceptual abilities, and physical abilities. It was hypothesized that if teaching matches the developmental levels of the students, then teaching in the primary grades may be quite different from teaching in the intermediate grades.

Hypotheses concerning differences in teaching betweeen the primary and intermediate grades were developed based on theories of child development and related research (Brophy & Evertson, 1978, 1981; Rohrkemper, 1982). The hypotheses concerned variations between the primary and intermediate grades in amount and types of teacher communications, grouping strategies, proportion of independent work, and types of materials. The specific hypthoses follow.

In comparison with intermediate classrooms, primary classrooms will:

1. Have a greater frequency of:
    a. teacher communications (statements to students)
    b. teacher use of sanctions (communications which evaluate a student's work or behavior)
    c. teacher use of procedural communications (communications which focus on non-academic behavior)
    d. teacher use of child-centered behaviors (e.g., encouraging children to try out their ideas or relating material to the children's perspective)
2. Use a greater proportion of:
    a. individualized and small group instruction versus large group and whole class instruction
    b. teacher directed work versus independent work
    c. concrete materials versus written materials
    d. teacher use of explanatory communications versus non-explanatory communications
3. Have a lesser proportion of teacher use of communications focusing on handling information (academic content) versus other teacher communications.

The study was designed to collect data in a variety of ways and from a variety of sources in order to yield as complete a picture of teaching as possible concerning these hyotheses.

Method

Sample

The sample for the study consisted of 11 elementary classrooms--three each of grades 1, 2, and 5, and two of grade 4. These classrooms comprised all of the classrooms at those levels within the same elementary school in a small city school district in western New York State. Students came from predominately white, lower and middle income families.

All of the teachers voluntarily agreed to participate in the study. The teaching experience of the teachers ranged from 9 to 31 years. The majority of each teacher's classroom experience was at the level that s/he was currently teaching (primary or intermediate). All students in the 11 classrooms received forms requesting parental permission for them to participate in the interview portion of the study. Six to 12 students from each classroom returned the forms granting such permission. From these, five students were randomly selected to participate from each classroom. The final student sample for the interview portion of the study included 55 children ranging in age from 6 to 11 years.

Procedures and Analysis

Classroom Observation. Each classroom was observed for four 45 minute observation periods within one week in May 1986 yielding a total of 33 hours of data. The observations in each classroom took place on four separate days and occurred at a different time on each of those days. Figure 1 presents the observation instrument used. This instrument combines (a) a modified version of the Joyce Observation System (Joyce, 1970) in which affective, cognitive, and procedural teacher communications were recorded every 15 seconds with (b) a system in which grouping, control (teacher-directed vs. independent), and materials used were categorized once every five minutes.

Two doctoral students in education collected the data. Each observer collected data at least twice in each classroom. An inter-observer reliability of 86.4% between both observers and the primary researcher was established in a live classroom prior to the collection of the data. Reliability was also calculated for 9 of the 44 observations of the study with at least one of the nine being done daily. The overall percent of exact agreement was 84.1%.

For the hypotheses dealing with frequencies of teacher communications, frequencies for primary and intermediate teachers in the appropriate categories were compared using t-tests. For hypotheses focusing on proportion, porportions for primary and intermediate teachers in the appropriate categories were compared using Mann-Whitney tests.

Classroom_____ Grade level____ Observer_____ Observation #____ Time: beg_____ end_____

A. Sanctions (code each as '+' or '-')

1. Search
2. Inter-personal
3. Attainment
4. Following rules/directions
5. General

B. Handling Information

1. Asks child to hypothesize, observe, speculate
2. Lecture question
3. Statements, Conclusions
4. Relates information to child perspective

C. Procedural Communications

1. Relates to child perspective
2. Other

D. Maintainance Communications

Grouping	Teacher-directed	Independent
1. Individual		
2. Small group		
3. Large group		
4. Whole class		

Materials		
Written:	Teacher	Student
blackboard		
overhead		
other display		
books		
ditto		
other		
Concrete:		
manipulatives		
games		
equipment		
other		

*E--code each communication as 'e'--explanatory or '/' non-explanatory

Figure 1. Classroom observation form.

Response to Vignettes. Observers, teachers, and five students from each classroom responded to three vignettes depicting situations involving classroom instruction and behavioral problems. Teachers and observers read the vignettes themselves. Vignettes were rewritten in simpler language and read aloud to students. Observers responded to the vignettes in writing. Teachers and students were asked questions concerning the vignettes in live, tape-recorded interviews conducted by the primary researcher and lasting from 15 to 45 minutes. Interviews took place during seven consecutive school days. Four of those days coincided with the classroom observations. Observers were given the vignettes and the questions to respond to in writing. They were asked to write how they felt each teacher would respond after they had completed their classroom observations of that teacher.

Two of the vignettes dealt with behavioral problems and were designed and revised during research done by Brophy and Rohrkemper (1981). These two vignettes follow:

> 1. Bill is an extremely active child. He seems to burst with energy, and today he is barely "keeping the lid on." This morning the class is working on their art projects and Bill has been in and out of his seat frequently. Suddenly, Roger lets out a yell and you look up to see that Bill has knocked Roger's sculpture off his desk. Bill says he didn't mean to do it, he was just returning to his seat.

> 2. Sarah often seems to be off in her own world, but today she is watching you as you lead a discussion. Pleased to see her attentive, you ask her what she thinks. However, you have repeated her name and she looks startled when she realizes you have called on her. Meanwhile, you realize that she has been immersed in daydreams and only appeared to be paying attention.

In response to these vignettes, all subjects were asked what the teacher would say and do if such an incident occurred in their own classrooms, why the teacher would do this, and how the teacher would think of the student depicted. Students were also asked what they and their classmates would do if such an incident occurred in their classroom, and what they would say and do if they were the teacher.

The third vignette stated that the "class is working on the topic of nutrition--'foods that are good for you'." Subjects were asked to describe how the teacher would present a lesson on this topic. After each subject gave his/her initial response, s/he were asked follow-up questions which were based on previous research (Morine-Dershimer, 1978-1979). The follow-up questions were designed to elicit information on space arrangement, materials, directions, objectives, teacher consideration of pupil characteristics, and similarities and differences between the described lesson and typical lessons in the class.

Responses to the vignettes were coded by the author. Vignettes 1 and 2 were coded using a modified version of a system used by Rohrkemper (1982, 1984) which categorized responses concerning teacher behaviors, teacher goals, teacher views of the children depicted, and student reactions to the children depicted. Vignette 3 was coded using categories derived from the responses of the subjects concerning grouping, control, methods and materials, teacher consideration of pupil characteristics, and teacher goals. Each category within each variable was treated as 0 (not used) or 1 (used) by each subject. The results of this coding were added to form total scores for teachers, students, and observers at each level (primary and intermediate) and for each vignette.

Results

This section summarizes the results of the classroom observations and responses to the vignettes separately. The discussion section that follows will clarify how the vignette data relates to the hypotheses and observational data and integrate other relevant details.

Observations

Table 1 presents the results for the four hypotheses that focused on frequencies of teacher communications. As shown in the Table, primary classrooms had significantly more total teacher communications ($p < .01$), teacher use of sanctions ($p < .10$), and teacher use of procedural communications ($p < .05$) than intermediate teachers. There were no significant differences between primary and intermediate teachers' use of child-centered communications.

Results for the hypotheses focusing on proportions of teacher communications and classroom activities are presented in Table 2. Primary classrooms were found to use significantly more individual and small group instruction ($p < .01$) and concrete materials ($p < .05$) than intermediate classrooms. No other significant differences were found.

Table 1

Means (M), Standard Deviations (SD), and Probability Data from t-tests of Primary and Intermediate Teachers' Frequencies of Communications

	Frequency use of category				
	Primary teachers		Intermediate teachers		
Type of communication	M	SD	M	SD	t
Total communications	986.5	151.9	733.6	96.4	2.91***
Sanctions	309.7	72.7	238.8	51.6	1.65*
Procedural communications	299.2	62.3	219.2	51.5	2.07**
Child-centered communications	97.1	55.1	81.6	43.8	0.23

*$p < .10$, one-tailed. **$p < .05$, one-tailed.

***$p < .01$, one-tailed.

Table 2

Mean Proportion Use of Categories in Primary and Intermediate Classrooms

Activity/ Communication	Mean Proportion Use of Category		
	Primary	Intermediate	p
Individual/small group instruction	.30	.16	.01
Teacher-directed work	.63	.74	ns
Use of concrete materials	.25	.10	.05
Explanatory communications	.05	.06	ns
Communications handling information	.68	.75	ns

Response to Vignettes

Vignettes 1 and 2. Table 3 displays the number of primary and intermediate teachers who gave the most frequently occurring responses at least once to vignettes 1 and 2. Primary teachers' reports of teacher behavior differed from reports by intermediate teachers in that their most frequent responses included changing the classroom environment, requesting an apology or restitution, and explaining why behavior was inappropriate. Intermediate teachers rarely suggested these strategies;however, four of the five intermediate teachers described isolating a student for a brief time--a technique not mentioned by any primary teachers. (Observers' predictions of teacher behaviors concerning restitution, giving directions, and isolation were similar to the teachers' actual responses.)

Proportions of primary and intermediate students' responses by vignette are presented in Table 4. Students at both levels frequently predicted the teacher would give directions, threaten, and/or punish and that the teacher's goal was to control or punish. Primary students gave these responses to nearly the same extent for both vignettes. In contrast, intermediate students mentioned fewer punishing and threatening behaviors and goals in response to vignette 2 than they had in response to vignette 1. Intermediate students also more frequently reported other types of teacher behaviors and goals.

Table 3

Number of Primary and Intermediate Teachers Giving Selected Responses at Least Once in Vignettes 1 & 2

	Teachers	
Response	Primary n = 6	Intermediate n = 5
Teacher behavior		
ask for student input	4	5
modify teacher behavior	5	4
request restitution/apology	5	1
change environment	4	1
explain rule	4	1
give direction	3	0
isolate	0	3
help "victim"	1	2
Teacher goal		
improve behavior	3	2
keep things calm	1	3
Teacher view of student		
underlying causes	5	5
problem/bad	4	0

Table 4

Proportions of Students' Most Frequently Mentioned Responses for Vignettes 1 & 2 by Level and Vignette(V)

	Students			
	Primary n = 30		Intermediate n = 25	
Response	V1	V2	V1	V2
Teacher behavior				
give direction	.43	.56	.68	.60
threaten	.63	.46	.30	.16
punish	.30	.33	.56	.30
request restitution/ apology	.03	na	.20	na
ask for student input	.07	.10	.04	.12
modify teacher behavior	0	.03	0	.24
Teacher goal				
control/punish	.50	.28	.52	.12
don't know/can't rate	.23	.32	.12	.44
improve learning	0	.20	0	.40
improve behavior	.07	.28	.04	0
protect others	0	0	.12	0

(table continues)

Table 4 continued

	Students			
	Primary n = 30		Intermediate n = 25	
Response	V1	V2	V1	V2
Teacher view of student				
problem/bad	.56	.13	.48	.04
don't know/can't rate	.13	.36	.24	.52
good & bad	.28	.16	.08	0
normal/good	0	.26	.16	.28

Both primary and intermediate students reported negative teacher views of Bill in vignette 1; however, primary students' views were usually phrased simply such as "she thinks he's mean". Intermediate students' reports were more qualified and elaborate such as "the teacher thinks he's not mature enough to act like a fifth grader". Intermediate students' responses were more often coded as "can't rate" because of their more elaborate and less absolute descriptions.

There were some slight differences between primary and intermediate students' reactions to the depicted students. Primary students were more likely to express sympathy for the depicted students (.18 compared to .04 for intermediate students). Primary students were also more likely to say that they would tell the teacher (.13 compared to .04 for intermediate students). Intermediate students reported that their classmates would tease the depicted students (.22) whereas this was a rare response by younger students (.02).

In 87% of their responses, primary students indicated that if they were the teacher they would handle the situations depicted in ways exactly like or very similar to the ways in which they had predicted their teachers would. Sixty percent of the intermediate students said that they would respond as they had predicted their teachers would.

Vignette 3. Primary teachers' descriptions of nutrition lessons varied from those of intermediate teachers in three ways. First, primary teachers noted seven different goals when describing their lessons while intermediate teachers noted three. Goals common to teachers at both levels included informing students and influencing student behavior (e.g., to eat more fruits). Primary teachers' goals also included helping students understand why certain foods are good to eat, teaching safety in the kitchen, improving students' ability to follow directions and sequence, and improving writing skills.

Five of the six primary teachers mentioned particular characteristics of children that they would consider in organizing a lesson such as having students sit as a group on the floor to help them be attentive and considering children's small motor coordination when assigning tasks. Two of the five intermediate teachers mentioned pupil characteristics which influence their planning.

Five of the six primary teachers and 40% of the primary children described space arrangements which included the floor, tables, or rearranged desks. Only one intermediate teacher and 28% of the intermediate students described such arrangements and most of them noted that the variety in space arrangement was not typical in their classrooms.

Intermediate students' frequently described lessons that included independent individual and/or small group work

(.68). Primary students rarely described independent activities (.07) or any type of small group and individual lessons (.13). Teacher-directed, whole class activities were described by equal proportions of primary and intermediate students (.40 each). In contrast, at least one of the observers predicted individual or small group activities in each of the primary and intermediate classrooms, but whole class activities were predicted for all of the intermediate classrooms and only three of the six primary classrooms.

Observers' descriptions also differed between the primary and intermediate levels by use of materials. At least one observer predicted that each of 10 of the 11 teachers would use written materials in their lessons. However, the observers mentioned the use of concrete materials for five of the six primary teachers and none of the intermediate teachers.

Discussion

Hypotheses not Supported by Significant Differences

Child-centered and explanatory communications. Of the nearly 10,000 teacher communications recorded, only .10 (991) of all teacher communications in both the primary and intermediate grades were categorized as child-centered communications. Only .06 (534) of all teacher communications were coded as explanatory. Primary and intermediate teachers made child-centered and explanatory communications to approximately the same extent.

Although none of the teachers evidenced a great number of child-centered or explanatory communications during the classroom observations, four of the six primary teachers indicated they would explain a rule in response to children's inappropriate behaviors as portrayed in Vignettes 1 or 2. Explaining a rule was only suggested as a teacher behavior by one intermediate teacher.

However, both primary and intermediate teachers described characteristics of children which they took into consideration when responding to the vignettes. Teachers at both levels also frequently described the portrayed students in terms of causes which might be underlying their behaviors (e.g. problems at home or with peers or schoolwork). In consideration of such causes, teachers often described that they would modify their teaching behaviors to accomodate the student in question. The comments made by both primary and

intermediate teachers indicate that they consider a number of developmental characteristics and individual circumstances of their students in making teaching decisions. However, it seems that these considerations are not readily apparent through teacher behaviors as interpreted by others. Students rarely reported that their teachers would cite underlying causes of students' behavior or modify their teaching behaviors. Observers also noted these categories less frequently than teachers.

Teacher-directed versus independent work. The proportion of teacher-directed work coded in primary classrooms (.63) was less than the proportion of teacher-directed work coded for intermediate classrooms (.74). These findings are in the opposite direction of the hypothesized difference (although they did not achieve significance).

Fifty-five of the primary classrooms' 110 tallies recorded as independent work were made in conjunction with tallies indicating that teacher-directed small group instruction was occurring at the same time. Thus half of the time when independent work was recorded in primary classrooms some of the students were working independently while others were working with the teacher. In intermediate classrooms 90% of the tallies indicated that all of the children in the class were working independently.

Taking these differences into consideration, it appears that the amount of time per child that was spent in independent work was very similar between the primary and intermediate grades. However, when students in the primary grades were engaged in independent work, the teacher was frequently instructing a small group lesson. It seems that primary children, who are developmentally less able to operate independently, spend more schooltime in which they are expected to work independently without the teacher readily available to offer occassional help, encouragement or suggestions, since she is teaching a lesson with another group of students. This apparently is the trade-off which is made in order to offer more individualized instruction to young students.

In response to the vignettes, intermediate students predicted many more independent activities (.68) than primary students (.07). Compared to the observational data and the vignette responses from teachers and observers, the frequency of independent work was over-reported by intermediate students and under-reported by primary students. Perhaps this is because primary students focus more of their attention on the teacher and think of school in terms of what the teacher does or in terms of their direct interactions with the teacher. Intermediate students may think of school more in terms of the academic work which they must accomplish.

Communications handling information. Primary teachers actually made a greater number of communications focusing on handling information than did intermediate teachers. However, since primary teachers made more communications overall, their proportion of such academic communications was less (.68 compared to .75 for intermediate teachers). This difference was in the expected direction but was not large enough to be considered significant. In contrast, Brophy and Evertson (1981) found that intermediate teachers initiated significantly more academic contacts than primary teachers.

Brophy and Evertson's study had more power to show the significance of smaller differences. Furthermore, their results concerned the number of academic contacts initiated by teachers which is not the same as the overall proportion of academic communications. Perhaps intermediate teachers initiate more academic contacts, but these contacts subsequently contain fewer interactions between teachers and students.

Hypotheses Supported by Significant Differences

Total teacher communications. The hypothesis, that in comparison with intermediate classrooms, primary classrooms will have a greater frequency of teacher communications, was supported by the present study. In fact, the present study found large differences in the number of teacher communications with students in just three hours of

observation time per classroom. The results of this study indicate that a primary teacher makes approximately 500 more communications per day than an intermediate teacher.

That primary teachers used a greater number of communications with their students is logical given that younger children are more dependent on adults and in need of more adult reassurance and support than older children. It seems likely that younger students not only need more contact with their teachers but act in ways that practically ensure it. For example in this study, primary students occasionally (.13) noted that they would "tell the teacher" in response to vignettes 1 and 2. These vignettes did not encourage this response since they indicated that the teacher was already aware of the students' behavior.

Sanctions. The finding that primary teachers used significantly more sanctions than intermediate teachers is consistent with the proposition by theorists that young children view their teachers as all-knowing and all-powerful. (In this study, the finding that 87% of the primary students would do what they predicted their teacher would in response to vignettes 1 and 2 supports this proposition.) Sanctions from the teachers would thus be effective means of communicating with these students. What the teacher approves and disapproves of is important to and usually not doubted by young children. In intermediate classrooms, teachers still need to communicate correctness

of student responses, appropriateness of behaviors, and so on, but intermediate teachers are not viewed by their students as quite so perfect or important as the teachers of younger students, so that sanctions from the teacher may not be the most effective way to deal with many situations.

Further analysis of the observational data showed that teachers used positive sanctions approximately twice as much as negative sanctions with a proportion of .68 for primary teachers and .63 for intermediate teachers. Student responses to the vignettes did not reflect this. Certainly this was partially due to the fact that the vignettes portrayed student misbehaviors so that there was less opportunity for students to describe positive sanctions used by their teachers. However, students' predictions of teachers' use of negative sanctions did far exceed those of teachers' or observers' predictions.

These findings are consistent with Mary Rohrkemper's results (1982, 1984) in which students predicted many more threatening and punishing behaviors than reported by teachers. The data from this study also supports Rohrkempers findings that primary students' reported more threatening and punishing responses than intermediate students and differentiated less between the vignettes.

Procedural communications. The fact that this study found that primary teachers used more procedural communications than intermediate teachers fits well into the

description of primary children as being in the process of becoming socialized to school. Young children need feedback from the teacher concerning appropriate and inappropriate behaviors. The emphasis on learning appropriate behaviors in the primary grades is also apparent through the responses of teachers', students', and observers' to the vignettes.

The only goal mentioned by more than one primary teacher in response to vignettes 1 and 2 was to improve behavior. In response to vignette 3, two primary teachers also mentioned goals concerning behaviors not directly associated with good nutrition (safety in the kitchen and following directions and sequence). So that even given a particular topic to plan for, primary teachers, to some extent, incorporated teaching appropriate behaviors and even mentioned these as goals of the lesson. (None of the intermediate teachers mentioned similar goals.)

Three primary teachers described characteristics of young children's behavior that they would consider when planning a lesson--distractability and dependence on the teacher. In contrast to primary teachers' focus on <u>improving</u> behavior, when intermediate teachers discussed problems with students' behavior it was usually in terms of helping children to accept responsibility for their behavior. Older children were expected to know what the appropriate behaviors were.

Primary and intermediate students' responses to the vignettes reflected a similar difference in emphasis concerning children's behaviors. A total of .52 of primary students' responses were coded as including the teacher's goal of either control/punish or improve behavior. Only .18 of their responses could be coded in any other goal category. In contrast, intermediate students responses were more varied with .34 of their responses coded as control/punish or improve behavior and .38 of their responses coded in other categories. It seems that either primary students are aware of the teachers' focus on behavior or they share this focus with the teachers.

Students' reactions to the children depicted in the vignettes are consistent with the idea that older students more often expect their peers to be knowledgeable of appropriate behaviors. In comparison with primary students, intermediate students more frequently described that classmates would tease a student for inappropriate behavior and less frequently indicated that they would be sympathetic.

Observers also reported a greater proportion of primary teachers' goals in vignettes 1 and 2 that dealt with behavior. Of all the goals observers reported for primary teachers that could be rated, .75 were in the categories control/punish and improve behavior. In contrast, .58 of

the rateable goals they mentioned for intermediate teachers were in these categories.

Small group and individual instruction. This study found that primary teachers instructed students individually and/or in small groups to a significantly greater extent than intermediate teachers. Thirty percent of the time primary classrooms were observed, individual or small group instruction was occurring. Fifty of the 56 tallies recorded in these categories were for small group instruction. All but two of the primary classrooms' tallies for small group instruction were recorded at times when those classes were scheduled for language arts (including reading). The large amount of small group instruction recorded in the primary grades, then, appears to be mostly a result of reading instruction. Of the 23 tallies recorded in intermediate classrooms in these categories, only 5 were for small group instruction. These were recorded in a fourth grade classroom.

In response to vignette 3, primary and intermediate teachers described individual or small group instruction about equally as much. The one primary teacher who exclusively described the nutrition lesson as a small group activity said that this was unusual because most instruction, other than reading, was done with the whole class. This appears to be the reason why the vignette data did not show the same results regarding grouping as had been

found in the observational data. Since the vignette described a science lesson it was not necessarily thought of as a small group lesson by the primary teachers. The observers were the only subjects to predict more small group activities in primary classrooms than intermediate classrooms in response to vignette 3. They were apparently predicting what they thought they had observed. They did not limit the the prospect of small group instruction in the primary grades to reading.

Concrete materials. The observational data collected showed that primary classrooms used a significantly greater proportion of concrete materials than intermediate classrooms. The mean proportion use of concrete materials in comparison to written materials was .25 in primary classrooms and .10 in intermediate classrooms. Although this difference was found to be significant, it is still important to note that the average use of written materials in primary classrooms was still very large--.75.

In response to vignette 3, both teachers and students described the use of concrete materials to a greater degree than the actual classroom proportions indicated was typical. However, teachers and students, to a lesser extent, recognized this by indicating that the nutrition lessons they described were more "hands-on" than typical lessons.

Some teachers noted that lessons using a variety of materials were desirable, but not always necessary or

practical. One intermediate teacher expressed that, with so many requirements that needed to be covered, there simply was not time to do many of these types of activities. A primary teacher noted that the use of concrete materials sometimes lead to children being too noisy and distracting others. Some teachers noted that the use of materials depended on the subject and/or abilities of the children. In general, teachers at both levels seemed to feel that the use of concrete materials was beneficial to children, but were selective about when these materials were used.

Although teachers' and students' responses did not reveal differences in the use of materials, they did indicate differences dealing with space arrangements in the classroom. In response to Vignettes 1 and 2, four of the six primary teachers stated that they would change the environment. In contrast, only one of five intermediate teachers gave this response. Many more primary teachers and students also described the use of the floor, tables, or rearranged desks when describing their lessons in response to Vignette 3.

Observers were the only subjects whose predictions of the teachers' use of materials in response to vignette 3 differed by grade level. Their predictions were consistent with the data they had collected--primary teachers were seen as much more likely to use concrete materials than intermediate teachers.

Conclusions

The results of this study support the proposition that teaching in the primary and intermediate grades is quite different. In the classrooms investigated, primary teachers interacted significantly more with students than did intermediate teachers. Furthermore, life in primary classrooms was much more highly focused on helping students to learn appropriate school behaviors than was the case in intermediate classrooms. Finally, primary teachers used grouping techniques, materials, space arrangements, and means of relating to their students (i.e., sanctions) that were less commonly used by intermediate teachers.

The observational data are supported by the vignette responses of all three groups of subjects (teachers, students, and observers) for only one hypothesis--that primary classrooms have a greater emphasis on procedural communications than intermediate classrooms. The combination of the observational and vignette data concerning this hypothesis make it the most strongly supported finding of the study. However, discrepancies between the observational and vignette data or between groups of subjects' responses to vignettes (e.g., teachers vs. students) are also important in developing accurate descriptions of classroom life.

For example, the analysis of the vignettes in the present study support Rohrkemper's conclusions that, compared to younger students, older students' understanding

of teacher behaviors seem to be at "a generally higher level of differentiation and sophistication" (1982, p. 10). (This description is also consistent with Piaget's theory of the inability of young children to consider others' points of view.) It follows that primary students may need more help in interpreting teacher behaviors than older students. Such help might be provided through teacher explanations or relating information more directly to children's perspectives. Yet the observational data from this study found that both primary and intermediate teachers infrequently gave explanations or interacted with students in ways which focused on student perspectives. These results seem inconsistent with teacher responses to the vignettes in which (a) primary teachers predicted they would use explanations in response to inappropriate student behaviors, and (b) teachers at both levels seemed aware of student perspectives as indicated by their frequent citing of underlying causes of student behaviors and reports that they would ask for student input and modify their teaching based on student behavior. An important question is why teachers espousals did not seem to match their behaviors. Further research might clarify whether this inconsistency is a result of a weakness in the observation instrument used in this study or an accurate portrayal of a discrepancy between teacher behaviors and reports.

Although the generalizability of this study is limited, the data indicate that further research concerning differences in teaching between various elementary grades is

warranted. The findings of such research would have many practical applications: (a) School administrators might take specified differences between the primary and intermediate grades into account when scheduling classes, planning class sizes, determining the duties of aides, selecting curriculum materials, hiring and reassigning teachers, providing workshops and other support for teachers, and so on. (b) Teacher educators could incorporate the knowledge of these differences into teacher education programs. They might want to evaluate whether or not teaching techniques appropriate to various grade levels are given equal attention in the training of elementary teachers. (c) Determination of certification levels, such as whether or not to have separate certification requirements for grades kindergarten through 3 versus grades 4 through 6, could be made from a more informed base.

By including two methods of data collection and input from three different sources, the present study recognized the complexity of the teaching-learning process and attempted to provide as much information as possible in consideration of the hypotheses being investigated. By collecting data in a variety of ways and including input from different sources, research adds greater depth to our understanding of classroom interactions. Although analyzing such data is a complex task, the end result is not only that questions are answered more thoroughly, but that new questions are raised.

References

Brophy, J.E., & Evertson, C. (1978). Context variables in teaching. Educational Psychologist, 12, 310-316.

Brophy, J.E., & Evertson, C. (1981). Student characteristics and teaching. New York: Longman.

Brophy, J.E., & Rohrkemper, M.M. (1981). The influence of problem ownership on teachers' perceptions of and strategies for coping with problem students. Journal of Educational Psychology, 73(3), 295-311.

Havighurst, R.J. (1972). Developmental tasks and education. New York: David McKay Company, Inc.

Joyce, B. (1970). The Joyce system. In A. Simon & E. Boyers (Eds.), Mirrors for behavior II: An anthology of observation instruments Vol. A (pp. 11/1-11/5). Philadelphia: Classroom Interaction Newsletter.

Morine-Dershimer, G. (1978-1979, Winter). Planning in classroom reality, an in-depth look. Educational Research Quarterly, 83-99.

Piaget, J. (1973) The child and reality. New York: Grossman Publishers.

Rohrkemper, M.M. (1982, March). Classroom perspectives: A comparison of teachers', students', and observers' perceptions of teacher behavior. Paper presented at the annual meeting of the American Educational Research Association, New York.

Rohrkemper, M.M. (1984). The influence of teacher socialization style on students' social cognition and reported interpersonal classroom behavior. The Elementary School Journal, 85, 244-275.